



E-ISSN: 2278-4136

P-ISSN: 2349-8234

JPP 2018; 7(5): 2092-2096

Received: 25-07-2018

Accepted: 27-08-2018

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Constraints and opportunities for women in agriculture in India

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Abstract

Woman plays a vital role in agricultural sector, as it is largely a household enterprise. They are the active participant in farm activities and processing farm products, in addition to their domestic and reproductive responsibilities. Women as farmers, agricultural labourer and entrepreneurs, constitute the backbone of India's agricultural and rural economy. But still their contributions are ignored since ages. Approximately Seventy percent of world poor are women and the major problems they face are peculiar social, cultural, educational, political and allied problems. Access to land, water, credit and other agricultural inputs, technology, new practices and extension services, education are the major constraints faced by rural women. Providing due recognition to women's work as well as access to education, extension services, information, land, credit facilities, resources, modern technologies and other relevant agricultural innovations will entice many women to agricultural productions and will help to reduce poverty among women farmers. So the improvement in productivity, profitability, stability, and sustainability of major farming systems can be obtained by integrating technology, work, and resources (both financial and social) effectively with gender, so that both men and women can play the active role in order to achieve the goal.

Keywords: Women, agriculture, decision making, education, constraints, opportunities

Introduction

Agriculture is India's most important economic sector. Out of the total population, 70% is rural; of those households, 60% engaged in agriculture as their main source of income ^[1]. Woman plays a vital role in this important agricultural sector, as it is largely a household enterprise. It was woman who first domesticated crop plants and thereby initiated the art and science of farming described by Swaminathan, the famous agricultural scientist. Women farmers account for more than quarter of the world's population. (Source: Food and Agriculture Organization, 2011). Women are the active participant in farm activities and processing farm products, in addition to their domestic and reproductive responsibilities. Major producers of food in India are women, in terms of value, volume and number of hours worked. Nearly 78% of women are engaged in agriculture as compared to 63% of all economically active men ^[1]. Women as farmers, agricultural labourer and entrepreneurs, constitute the backbone of India's agricultural and rural economy. Approximately 50% of agricultural and livestock workers are women, whereas in rural India the percentage is as high as 84% ^[2]. According to Doss (2011) ^[3], women comprise about 43% of the agricultural labour force globally. In the economy of majority of the developing nations including India, rural women constitute the most important productive work force. Approximately 4/5th of all economically active women in the country are employed in agriculture sector ^[4]. In conservation of basic life support systems such as land, water, flora and fauna, the major role has been played by women and continued to play. Major role carried out by women includes soil health protection through organic recycling and promotion of crop security through genetic resistance and maintenance of varietal diversity.

Although women participate in all phases of agricultural production, in most of the farming systems, still their roles including from decision making, control over resources and incomes varies greatly from place to place. Women play a significant and crucial role in agriculture and allied sectors, including crop and livestock production, horticulture, post-harvest management, forestry, fishery etc., but still their contribution are ignored since ages. Graphically, women constitute nearly 50% of the world's adult population and one-third of the total labour force ^[5]. They work nearly two-third of the total working hours but receive very less i.e., only one-tenth of world income and own less than one per cent of property ^[5]. The face of farming is stereotypically male, despite of such huge contribution of women in farming sector. On a daily basis they perform the most tedious and back-breaking tasks in fields as well as homes, still

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their hard works remained mostly unrecognised and are also paid with lower wages than men. Also in terms of agricultural related assets, inputs and services, women have less access than men. So the improvement in productivity, profitability, stability, and sustainability of major farming systems can be obtained by integrating technology, work, and resources (both financial and social) effectively with gender, so that both men and women can play the active role in order to achieve the goal [6].

Role of Women in agriculture and allied fields

In India, about 74 percent of the entire female workforce is engaged in agricultural operations [7]. In production of crops right from the soil preparation till post-harvest activities, rural women play key role by working with full passion [8]. Various labour intensive works such as sowing, transplanting, irrigation, fertiliser application, Plant protection, weeding, hoeing, harvesting, threshing, picking, winnowing, cotton stick collections, separation of seeds from fibre, storing etc. are performed by rural women. The primary subsistent activity which used to meet household food needs as well as supplement of farm income is livestock [9]. It is estimated that women are responsible for 70 percent of actual farm work [10]. Rural women also carried out different farm activities along with livestock and its other associated activities like cleaning of animal shed, collection of farm yard manure, fodder collection, watering, preparation of dung cakes, milking, milk processing and preparation of ghee etc. They earn extra income from the sale of milk and other animal products. Almost all livestock management activities are predominantly carried out by women except grazing.

Another major source of rural economy is poultry farming [9]. A woman plays a vital role in household level poultry farming. Income from poultry farming has been rising every year. Rural women earn extra income from eggs and poultry meat.

In production of staple crops like rice, wheat, maize, there is contribution of rural women, which are secondary, but play a major role in production of legumes and vegetables. Along with that rural women also have contributions in mushroom cultivation, sheep/goatery and vegetable gardening.

Constraints faced by women in Agriculture

Major constraints faced by women in agriculture and allied sectors are

1. Access to land
2. Access to water
3. Decision making
4. Access to Credit and other Agricultural inputs
5. Access to technology, new practices and extension services
6. Access to education

1. Access to land

Most often land ownership titles are in a man's name. Very few women have access to land holdings, i.e., only 11 percent, that too, mostly as small and marginal farmers [11]. Rural women are unable to access the benefits incurred from the land, despite of growing dependence on agriculture. This debarment of women from the benefits of land ownership and the associate resources leads to further loss to society. Women farmers, due to lack of the land ownership right are unable to utilize the livelihood assets that come from land ownership. They face difficulties in getting credit from banks or other forms of credit through the banking system as they are not the rightful owners of the land. Recent legislation on increasing

women rights to inherited land has not yet had any great effect on the distribution of landed property in the households. So no access to land prohibit the benefits of other employment avenues and micro-credit schemes, which worth pursuing as supplementary measures.

2. Access to water

The documents of water policy mention, the importance of women as managers of water, but unequivocally place women in the domestic water use domain. On the other hand, gender scholars, mainly focused on women's rights to land. The most important source of gender differences with respect to water does not lies so much in the gender specificity of water uses, but in gender differences with respect to access to and control of water [12]. Accesses to reliable water have several advantages like, it improves production and productivity, enhance employment opportunities and stabilize income as well as consumption. Access to water also encourages the utilization of other yield-enhancing inputs and results diversification into high-value products, which enhances nonfarm outputs and employment, and fulfills multiple needs of households [13]. In case of rural women, due to lack of access to water, they face several problems in farming activities, and thus inhibiting the economic growth and sustainability.

3. Decision making

Women's active involvement in decision making is considered as essential factor for rapid economic development of the country. Women are actively engaged in home and farm activities but their involvement in decision making process in agriculture field is quite minimal. Men often take decisions concerning farming. Major constraints in decision making in rural women are low self-confidence, lack of knowledge, belief that women are subordinate to male counterparts, poor access to technology, illiteracy, poor access of to farm information, etc. Other factors that influence the involvement of farm women in decision making process in agriculture are family income, land holding and education [14]. Some of the activities like marketing of agri-inputs and farm produce, manure/ fertilizer application type and manure/ fertilizer application are the activities wherein involvement of women in decision making is very poor [14]. Without access to power and adequate information, women cannot be involved in the decision-making processes which affect their lives.

4. Access to credit and other agricultural inputs

Majority of the women farmers have financial problem and lack financial assistance. Women farmers have little access to capital or credit facilities as well as other agricultural inputs. When it comes to having access to the tools of development and the means of raising the quality of life such as access to farm inputs, credit facility and extension service, women are underprivileged. Access to credit helps to increase total output as well as the farmer to change his or her desires to make expenditure on the use of mechanical equipment, working capital as well as improved seed [15]. So due to lack of access to credit and other inputs, hinders these benefits in production. Farm women have restricted access to production resources. Access to credit is difficult, since most of the rural women are not asset holders and do not own property, which is a prerequisite for lending agencies which make access to credit difficult. Thus, access to one of the most important factors of production, i.e., capital, is denied. There is a huge

need to accord women with access to farm inputs such as modern technology.

5. Access to technology, new practices and extension services

One of the major constraints for women in agricultural production is inadequate information about the improved technologies in agricultural production. Very few women are benefited from extension services i.e., only 5 percent ^[16]. They have often not been able to take advantage of opportunities from new technologies, innovations and extension services, despite their eagerness. Women were not found to be actively involved in the dissemination of knowledge about new technology given by extension workers, since they are considered as secondary workers in agriculture. As a result they were found to remain confined in their traditional package of practices.

Despite of women's positive roles in the agricultural and allied sector and growing awareness of the need to reach out to women farmers, agricultural extension services are mostly focus their attention toward male farmers. It is evident that in the delivery of extension services which is generally carried out by male extension agents to male farmers with an assumption that extension message will "trickle across" to women. But unfortunately it often does not. In India out of 88000 village extension workers, only about 10% (9000) are female. (NRCWA, Perspective plan).

6. Access to education

Another socio-economic characteristic is the educational level which is another important factor for the understanding of improved technologies provided to farmers. Almost half of the total population in the world is women and out of which two third of the world's adult illiterates are women ^[17]. Women workers in agriculture mostly suffer from high illiteracy rate among them as well as drop-out of schools.

Most of the rural women lack formal education, due to which, it would be difficult for them to obtain loans from financial institutions and other micro-credit schemes, as this requires formalities such as filling forms. This illiteracy level in farm women also have serious implications on agricultural productivity, income as well as their lifestyle as an educated women farmer has the capacity of taking critical decisions regarding innovations in agriculture.

Opportunities

Women are directly or indirectly associated with agriculture and allied activities. Hence for the economic growth of the country, farm women must be recognised as an important unit. There are several opportunities for rural women for self-development and self-employment.

Government schemes/programmes

There are several government schemes or programmes for upliftment of rural women in agriculture and allied sector as well as to encourage women entrepreneurship.

1. National mission on agricultural extension & technology (NMAET): Sub mission on agricultural extension (SAME)

a) Agriculture Technology Management Agency (ATMA)

Major objective is to provide support to Women Food Security Groups (FSGs). These groups of women farmers, established and supported under ATMA. They are provided with Rs.0.10 lakh per group/year to achieve food security at the domestic/house hold level through setting up of kitchen

garden, promoting off farm activities such as piggery, goat-rearing, bee-keeping etc. Support available for at least 2 FSGs/ Block. Other objectives of this agency include,

- Allocate and provide support to gender co-ordinator
- Representation of women farmers in decision making bodies i.e., Provision for mandatory representation of Women Farmers in State, District, Block Farmer Advisory Committees
- At least 30% of total scheme beneficiaries are to be women
- Women farmers and women extension functionaries are allocated with minimum 30% of resources meant for programmes and activities.

b) Agri-Clinic Agri-Business Centres (ACABC): Main objective is to provide back-ended composite subsidy. 44% Back-ended composite subsidy towards cost of project to women as compared to 36% to men.

c) Mass Media Support To Agricultural Extension: It provide provision for one day specially allocated to covers area of core competence women farmers in programmes of All India radio and Doordarshan.

2. Mission for Integrated Development Of Horticulture (MIDH):

It provide assistance for horticulture mechanization for grower association/farmers group/ Self Help Groups/Women farmer groups having at least 10 members, who are engaged in cultivation of horticultural crops, provided the balance 60% of the cost of machines and tools is born by such groups.

3. National Mission on Oilseeds and Oil Palm (NMOOP):

Under this scheme there is provision of 30% of budgetary allocation is being earmarked for women beneficiaries/farmers for promoting oilseed cultivation.

4. Integrated Scheme For Agricultural Marketing (ISAM):

Major objectives of this scheme are creation of scientific storage capacity for farm produce with allied facilities in rural areas to meet out various requirements of farmers for storage, processed farm produce, agricultural inputs, etc., and also prevention of distress sale by creating the facility of pledge loan and marketing credit. It provides 33.33% subsidy (on capital cost) for women as compared to 25% for men. Other objectives are,

- Incentivize agri-market reforms
- Provide market linkages to farmers
- Provide access to agri-market information
- Support quality certification of agriculture commodities.

5. National Food Security Mission (NFSM):

The objective of this scheme is to increase the production of major crops like, rice, wheat, pulses and coarse cereals through expansion of area and productivity enhancement in a sustainable manner in the identified districts of the country, Other objectives are restoring soil fertility and productivity at the individual farm level, as well as enhancing farm level economy (i.e. farm profits) to restore confidence amongst the farmers. In this scheme there is 30% of allocation of fund is being earmark for women farmers.

6. National Mission for Sustainable Agriculture (NMSA):

Major components of this scheme are, water use

efficiency, soil water conservation, soil health management and rain-fed area development. In this scheme there is provision of at least 50% of the allocation is to be utilised for small, marginal farmers of which at least 30% are women beneficiaries/farmers.

7. Sub-Mission on Agricultural Mechanisation (SMAM):

The main function of this scheme is to promote several drudgery reducing technologies for women in agriculture, developed by ICAR through training, demonstration and financial assistance. It also provide 10% additional financial assistance to women beneficiaries for purchase of various agricultural machines and equipments.

8. Sub-Mission on Seed and Planting Material (SMSP):

This scheme covers the entire process of seed production chain, from production of nucleus seed to supply of certified seeds to the farmers. It also provide training to women farmers under the components of the scheme Seed Village Programme and Quality Control Arrangement of seeds. There is also provision by State Government to allocate adequate funds to women farmers.

9. National Horticulture Mission:

The major objective of this scheme is to increase the horticulture crop production (fruits, vegetables, flowers, coco, cashew nut, plantation crops, spices, medicinal aromatic plants) to the maximum potential available in the state. It provides farm inputs, technological and extension supports to women organized into Self Help Groups to make women self-reliant.

10. Agricultural Insurance:

Training Programmes on Gender friendly Equipment for Women farmers are to be conducted by Farm Machinery Training & Testing Institutes and as beneficiaries at least 30% allocation of the fund is to be made to women farmers.

11. The Indian Council of Agricultural Research (ICAR):

A network of 645 Krishi Vigyan Kendras (KVKs) has been established by ICAR in the country with an objectives of assessment and demonstration of technologies/products and its dissemination through a number of extension programmes including training of women farmers to enhance their knowledge and skill.

These training programmes on improved technologies related to agriculture and allied fields has been conducted by KVKs which have benefited the women farmers in terms of increased crop production and farm income. Around 205 women oriented income generation technologies related to technological empowerment of rural women were assessed in 394 locations covering 2917 trials during 2015-16. These technologies are mainly under the thematic areas, namely drudgery reduction, Farm mechanization, Health and Nutrition, Processing and Value addition, Production and Management, Energy Conservation, Small Scale Income Generation, and Storage Techniques. Mushroom, sericulture, Vermicompost production, nutritional gardens etc are the major enterprises included. Around 339681 Farm women were trained in the crop production training programmes.

Biotech-KISAN: This programme was initiated by the Minister for Science and Technology. It is a new programme that empowers farmers, especially women farmers. The

objective of this programme is to empower the women farmer and help her to improve her concern for better seed, storage of seed and protection of the crops from insect, pest and diseases. Under this scheme there is provision of the Mahila Biotech- KISAN fellowships, for training and education in farm practices, for women farmers. The Scheme also aims to provide support to the women farmers/ entrepreneur in their small enterprises, making her a grass root innovator.

Other such schemes which are providing benefits to women are:

Stand Up India: This scheme has launched on 5th April 2016, ensures that women and SC/ST entrepreneurs have a fair chance at setting up their own businesses. The scheme facilitates loans from Rs.10 lakh to Rs 1 crore for women and SC/ST.

STEP (Support to Training and Employment Programme for Women): The govt. of India has launched this scheme in 1986-87 with an objective of upgrading skills of women for self and wage employment. The target group includes the marginalized asset less rural women and urban poor. The major objective of this scheme is to provide skills that give employment to women as well as to provide competencies and skill that enable women to become self-employed / entrepreneurs.

Skill India: This Skill India campaign was launched by Prime Minister Narendra Modi on 15th July 2015 with an objective to train over 40 crore people in India in different skills by 2022. Various initiatives of the govt. like "National Skill Development Mission", "National policy for Skill development and entrepreneurship, 2015", "Pradhan Mantri Kaushal Vikas Yojana (PMKVY)" and the "Skill Loan Scheme" are included under this scheme. Skill India empowers more than 35 lakh women by providing better livelihood, security and financial independence.

Mahila Kisan Sashaktikaran Pariyojana (MKSP): Ministry of Rural Development has implemented this scheme to empower women in agriculture by making systematic investments to enhance their participation and productivity, and also create and sustain agriculture based livelihood of rural women.

Pradhan Mantri Krishi Sinchai Yojana (PMKSY): This scheme was launched by the government with an aim to bring various ministries engaged in the use and recycling of water under one platform. Such an initiative will help women farmers in water budgeting based on purpose such as household, agriculture and industries.

Indian government offers a financial boost specially design for women entrepreneurs. There are some of the available schemes like Bharatiya Mahila bank, Stree Shakti scheme, Orient mahila bikash yojana scheme, Dena shakti scheme, Cent kalyani scheme, Mahila Udyam Nidhi scheme, Mudra Yojana Scheme for Women etc. provided by banks and cooperative societies, to encourage rural women, New approaches to increase women's involvement in agricultural research are emerging in national and international institutions such as International Rice Research Institute (IRRI), Food and Agriculture Organization (FAO), United Nations Development Program (UNDP), International Institute of Tropical Agriculture (IITA), Indian Council of Agricultural Research (ICAR), and Integrated Tribal Development Agency (ITDA). These seek not only to benefit women but also to benefit from them, especially in the areas of crop production and biodiversity.

Conclusion

Women have engaged themselves in agricultural and allied activities since ages, but still their hard work have gone unnoticed and unrewarded. They manage every aspect of farm work but still are not considered as farmers. Rural women contributed their share in the form of hard work, energy and their valuable time. Approximately Seventy percent of world poor are women and the major problems they face are peculiar social, cultural, educational, political and allied problems ^[18]. Without establishing gender equality, development of a nation cannot take place. Providing due recognition to women's work as well as access to education, extension services, information, land, credit facilities, resources, modern technologies and other relevant agricultural innovations will entice many women to agricultural productions and will help to reduce poverty among women farmers. Also broader access to financial services provided through different schemes by government and other sources provides opportunities for improving the production of agricultural and allied sector, food security and economic vitality of entire communities and nations. Again involvement of women farmer in the process of modernization of farming practices is a must, in order to obtain an economically viable and ecologically sustainable agriculture ^[17].

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